

ABSTRACT OF THE DISCLOSURE

A method is disclosed for making an active optical device for coupling to optical fibers. Arrays of contacts are formed on the rear face of a substrate, which is preferably transparent, at precisely defined locations. Components are then flip-chip bonded onto the substrate using a solder alignment technique to attach the components to said substrate in precisely predetermined locations determined by the arrays of contacts. At least one of the components is a light emitter or receiver so that it can be optically coupled through the transparent substrate to an external light guide on the front face of the substrate. Preferably, a guide frame for positioning guide pins is bonded to the substrate also using a solder alignment technique.